

## **The Bureau of Waste Management Evaluates Safety Practices at Composting and Recycling Facilities**

During August - November 2003 safety practices were assessed at 7 of 105 active composting facilities and 21 of 1,500 active recycling facilities in our state. A copy of the questionnaire used to assess safety practices at each type of facility is available at the bureau's web site:

**<[www.kdhe.state.ks.us/waste](http://www.kdhe.state.ks.us/waste)>**

A summary of our findings and recommendations follow:

### **Compost Facilities**

#### **Findings**

- **Observed safety hazards:** trash and chunks of concrete in windrows that could become projectiles and a serious physical hazard to equipment operators or nearby observers
- **Potential hazards:** 1) lack of signage to safely direct traffic, and 2) poorly maintained safety equipment
- Safety plans were available at only two of seven, (29 percent)
- Safety training was conducted at six of seven facilities, (86 percent)
- Facilities were consistently conducting safety training meetings on a weekly to monthly schedule

#### **Recommendations**

- All composting facilities' personnel should use the safety practices questionnaire to periodically (semi-annually or annually) conduct a self-audits of their safety practices
- If deficiencies are found during the self-auditing process, improvements should be implemented promptly
- All composting facilities should have written safety plans
- Safety practices could be improved by conducting safety training based on written safety plans

### **Recycling Facilities**

#### **Findings**

- **Observed safety hazards:**
  - 1) Equipment maintenance lockout/tagout systems were not fully operational
  - 2) Multiple equipment operations had noise levels that will cause hearing loss
  - 3) Interior lighting levels were inadequate for safe operations
  - 4) Flammable materials were not stored properly
  - 5) Backup alarms were not operational on forklifts and towing vehicles
  - 6) Hazard paint stripping or barricades were not being used around paper baler pits
  - 7) Railings were absent at loading docks
  - 8) Bollards were not present to protect gas meters and fuel storage tanks
  - 9) Safety glasses and full-face respirators when appropriate
  - 10) Some machines did not have guards on moving parts

- **Potential hazards:**
  - 1) Inadequate numbers of fire extinguishers
  - 2) Lack of tags to document the most recent inspections of fire extinguishers
  - 3) Inaccessible and poorly maintained fire extinguishers and other safety equipment
  - 4) Lack of signs to direct traffic, define no smoking areas, and identify emergency contacts
  - 5) A number of machines did not have properly color coded emergency controls
  - 6) In a limited number of instances public and operations traffic crossed to hinder overall safety and operations efficiency
  - 7) Primary operating personnel had not received first aid, and CPR training
  - 8) Hearing protection was not being used where noise levels approached 85 db
  - 9) Signs were not provided to designate the locations for fire extinguishers
  - 10) Lack of written or outdated safety and operations plans
  - 11) Exit lights were not working properly
  - 12) Hazard paint stripping was not always present in hazardous work areas
- Safety plans were available at only 7 of the 21 facilities (33 percent)
- Safety training was conducted at 18 of 21 facilities (86 percent)
- Facilities were normally conducting safety training meetings on a weekly to monthly schedule

#### **Recommendations for Recycling Facility Operations**

- All recycling facilities' personnel should use the safety practices questionnaire to periodically (semi-annually or annually) conduct self-audits of their safety practices
- If deficiencies are found during the self-auditing process, improvements should be implemented promptly
- All recycling facilities should have written safety plans
- Safety practices could be improved by conducting safety training based on written safety plans
- All recycling facilities should require operational personnel to wear applicable personal protective equipment (PPE)
- All recycling facilities should require periodic (daily, weekly, monthly, yearly) inspections, as applicable, for all equipment to verify that it is operating properly and safely

For further information on this study, refer to the web address listed above or contact Dennis Degner at 785-296-1601.